

Appl. No. : 10/601,070
Filed : June 20, 2003

REMARKS

Applicants hereby respond to the Office Action of November 4, 2004. Applicants have amended Claims 1, 14, 24-27, 29, and 31-33, as discussed in greater detail below, and have cancelled Claims 34 and 35. No new claim is added. Therefore, Claims 1-7 and 9-33 are pending in the application.

Applicants have reviewed all of the Examiner's objections and rejections as set forth in the Office Action and respond thereto in detail below.

Rejections under 35 U.S.C. § 112, First Paragraph

Claims 1 and 25-35 stand rejected under 35 U.S.C. § 112, first paragraph, for allegedly not being enabled. Applicants respectfully traverse.

Claim 1 is directed to the compounds of Formula I. The Examiner states in the Office action that the specification is enabling for the treatment of psychosis using the compounds of Formula I, but does not provide enablement for the use of an amide, ester, or prodrug of the compounds of Formula I. Applicants respectfully traverse this rejection.

Applicants respectfully submit that the specification provides sufficient direction to one of ordinary skill in the art to make and use prodrugs of the compounds of the present invention. The specification, at Paragraph [0048] provides a definition for prodrugs and identifies a reference well-known to those of skill in the art, which enables the ordinary artisan to choose an appropriate prodrug and, armed with the knowledge of chemical synthesis that the ordinary artisan possesses, synthesize the chosen prodrug. Applicants further submit that a number of prodrugs commonly synthesized are those in which hydroxy side-chains are esterified and/or hydroxyl or amino side-chains are amidified. Esterification or amidification of these side-chains are within the skill of an ordinary chemist. Accordingly, Applicants respectfully submit that the specification of the captioned application provides an enabling disclosure for the esters, amides, or prodrugs of the compounds of Formula I.

With respect to Claims 25-35, Applicants have amended these claims to relate to modulating the activity of a 5HT_{2A} receptor. The Examiner concedes in the Office Action that the specification is enabling with respect to a 5HT_{2A} receptor, because the Examiner states "The instant compounds are inverse agonists at 5HT_{2A} receptors as taught by the instant specification and therefore, will have utility in treating psychosis." See the Office Action at page 3.

Appl. No. : 10/601,070
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Applicants have made these amendments solely for the purpose of expediting prosecution and advancing the case towards allowance and without acquiescing to the Examiner's arguments regarding the enablement of these claims. Applicants reserve the right to pursue the cancelled subject matter in this or any other patent application.

In view of the above, Applicants respectfully request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. § 112, first paragraph.

Rejections under 35 U.S.C. § 112, Second Paragraph

Claims 1, 14, and 24-35 stand rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite.

With respect to Claim 1, the Examiner has alleged that the terms "amide, ester, or prodrug" are indefinite because allegedly no specific compound is defined and because it is allegedly unclear whether these compounds retain activity at the 5HT2A receptor.

Applicants respectfully traverse. The specific terms "ester," "amide," and "prodrug" are well-understood by those of ordinary skill in the art. Furthermore, as discussed above, Applicants in Paragraph [0048] of the specification have provided sufficient guidance for one of ordinary skill in the art to prepare and use esters, amides, or prodrugs of the compounds of Formula I. In addition, it is understood by one of ordinary skill in the art that an ester, amide, or prodrug of a pharmaceutically active compound may not itself be pharmaceutically active. Instead, such a compound must be metabolized in an organism or in a cell and be converted to the pharmaceutically active compound. This maxim, in fact, forms the entire basis for the synthesis and development of prodrugs, which is a vibrant and active part of the pharmaceutical industry. Therefore, Applicants respectfully submit that a claim to a prodrug is not rendered indefinite solely because the prodrug of a compound of the invention may not itself be active against the target receptor.

The Examiner has rejected Claim 14 for allegedly having insufficient antecedent basis for the terms "alkyl" and "alkoxy." Claim 14 was erroneously depended on Claim 12, whereas it should have been depended on Claim 13. Applicants thank the Examiner for bringing this error to Applicants' attention and have amended Claim 14 to correct its dependence. Applicants respectfully submit that the aforementioned terms now have sufficient antecedent basis.

Appl. No. : 10/601,070
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The Examiner has pointed out that some of the compounds of Claim 24 fall outside of the scope of Formula I. Applicants have amended Claim 24 to remove these compounds therefrom. Applicants now submit that all of the compounds recited in Claim 24 fall within the structure of Formula I as set forth in Claim 1.

In view of the above, Applicants respectfully request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. § 112, second paragraph.

Rejections under 35 U.S.C. § 102(e)

Claims 1-7, 9-14, 17, 18, and 20-35 stand rejected under 35 U.S.C. § 102(e) for allegedly being anticipated by certain compounds disclosed in U.S. Patent 6,756,393 ("the '393 patent").

Applicants respectfully traverse. Applicants have submitted herewith the declaration of Dr. Carl-Magnus Andersson, submitted under 37 C.F.R. § 1.132. Dr. Andersson is an inventor of the captioned application as well as an inventor of the '393 patent. In his declaration, Dr. Andersson states that he indeed invented the compounds cited by the Examiner in the '393 patent as being prior art against the instant application. Applicants respectfully submit that because the same inventor invented the compounds of the '393 patent and the subject matter of the instant application, the compounds of the '393 patent cannot be considered an invention by "another." Consequently, the compounds disclosed in the '393 patent are not prior art against the present application under 35 U.S.C. § 102(e).

Claims 1-3, 5-12, 14, 17, and 18 stand rejected under 35 U.S.C. § 102(e) for allegedly being anticipated by certain compounds disclosed in Leach et al. (WO 03/086400).

Applicants respectfully traverse. Compounds of Leach et al. comprise a central nitrogen atom substituted in part with an R^5 - R^6 moiety. Each of R^5 and R^6 is an aryl or heteroaryl. See Leach et al. at page 3, lines 7-15. In the compounds cited by the Examiner both R^5 and R^6 are phenyl groups. According to Claim 1 of the instant application, as amended herewith, Ar^1 , the moiety analogous to the R^5 - R^6 of Leach et al., cannot be substituted with aryl or heteroaryl groups. Therefore, a compound having a biphenyl substituent at the central nitrogen atom does not fall within the scope of Claim 1 of the instant application, and claims depending therefrom.

Because at least one of the elements of the present Claim 1 is not present in the cited reference, the reference does not anticipate Claim 1, or any claim depending therefrom. In view

Appl. No. : 10/601,070
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of the above, Applicants respectfully request that the Examiner reconsider and withdraw the rejections under 35 U.S.C. § 102(e).

Allowable Subject Matter

Applicants thank the Examiner for finding the subject matter of Claims 15, 16, and 19 allowable. Applicants believe that in view of the above amendments and arguments all of the claims currently pending are allowable and therefore refrain from casting Claims 15, 16, and 19 in independent form.

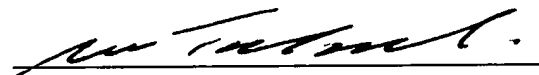
CONCLUSION

Applicants have endeavored to respond to all of the Examiner's rejections and objections raised in the Office Action of November 4, 2004. Applicants respectfully submit that the pending claims are allowable and request a notice to that effect. Applicants have enclosed a check for \$450 for a two month extension of time. If this fee is incorrect, please charge any additional fees, including any fees for additional extension of time, to Deposit Account No. 11-1410.

Respectfully submitted,

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